

Claim 5 is an independent claim from which claims 6-16 depend, either directly or through intervening claims.

Claims 17 and 18 are independent claims.

BRIEF SUMMARY OF THE INVENTION

The brief summary of the invention set forth in the last Reply is incorporated herein.

REPLY TO REJECTIONS

First Rejection

Claims 1 and 17 were rejected under 35 U.S.C. 103(a) as being unpatentable over Toyosawa (U.S. Patent 6,337,257). This rejection is traversed.

The reasons for rejecting the claims are set forth in Section 2 of the Office Action.

Initially, Toyosawa does not disclose an abraded surface. An abraded surface by definition is a surface that is formed, for example, by friction. See, for example, element 4 in Figure 1a in the present application. This comment only applies to claim 1, as claim 17 does not have the structure of the abraded surface. Note, in Toyosawa, the smoothness is achieved not by brazing, but by etching, etc. See, for example, column 4, lines 25-28 of the reference.

In Toyosawa, "still another protective tape" is stuck on the second surface 36 of a wafer. This tape is used to hold divided chips 32 collectively. It

does not reinforce chip 32 and is distinguished from the resin 5 (claim 2) of the present invention.

As disclosed in Toyosawa, the second surface 36 is a surface opposite one of two main surfaces of chip 32 that is subjected to bonding. The reference, however, fails to describe that a reinforcement member is stuck on the second surface. Element 55 shown in Fig. 4 is an etchant and it is irrelevant to reinforcement. Even if "still another protective tape" stuck on the second surface 36 should be provided if it were a reinforcement, which it is not, at best it is temporary reinforcement in a packaging process. It does not address an impact experienced by a dropped product of mobile electric equipment, a bending stress experienced by the product, and the like, as achieved in the present invention.

In Toyosawa, another component that can be found as a resemblance to the reinforcement member of the present invention is dicing tape 58. However, this tape is simply a supporting member temporarily stuck for dicing a semiconductor chip. After the dicing step the tape is removed. In contrast, the reinforcement member of the present invention is stuck on a back surface of a semiconductor chip and even after the product is completed the member is still stuck thereon and can permanently act as a reinforcement member against bending, impact and the like. This feature further distinguishes the present invention from the reference.

Also, the results of the reinforcing member are more than just applying a protective tape, because it avoids disadvantages of the prior art, as discussed, for example, on page 2, lines 18-25 of the specification.

For the reasons set forth above, the Examiner is requested to reconsider and withdraw the rejection of the claims under 35 U.S.C. § 103.

Second Rejection

Claims 2 and 4 were rejected under 35 U.S.C. 103(a) as being unpatentable over Toyosawa in view of Ohuchi (U.S. Patent 6,271,588). This rejection is traversed.

Initially, these claims are dependent on claim 1, directly or through intervening claims. The addition of Ohuchi does not cure the inherent deficiencies of the rejection set forth regarding claim 1.

Also, it is not disputed that resin is a known material, but in the combination, the resin provides a result which is unexpected. See, for example, page 2, lines 26-29 of the specification.

For the reasons set forth above, the Examiner is requested to reconsider and withdraw the rejection of the claims under 35 U.S.C. § 103.

Third Rejection

Claim 3 was rejected under 35 U.S.C. 103(a) as being unpatentable over Toyosawa in view of Ohuchi, and further in view of Horiuchi et al. (U.S. Patent 6,242,799). This rejection is traversed.

Claim 3, which is dependent on 2/1, claims a specific resin material. The addition of the third reference does not cure the inherent deficiencies of the rejection of claim 2 as explained above. Additionally, the particular material provides a result which is not expected as explained in the paragraph bridging pages 2 and 3 of the specification.

For the reasons set forth above, the Examiner is requested to reconsider and withdraw the rejection of the claims under 35 U.S.C. § 103.

Fourth Rejection

Claims 5-8 and 18 were rejected as being unpatentable over Tamaki et al. (U.S. Patent 6,136,668). This rejection is traversed.

In the rejection, the Office Action asserts that the adhesive material 31 on the grinded surface would obviously have been resin. There is no evidence to support this rejection. The Examiner's position is true speculation, which, of course, is not evidence. Furthermore, the use of resin, as explained above, provides an unexpected result. Thus, the rejection fails to establish any prima facie case of obviousness.

For the reasons set forth above, the Examiner is requested to reconsider and withdraw the rejection of the claims under 35 U.S.C. § 103.

Fifth Rejection

Claims 9-12 were rejected under 35 U.S.C. 103 as being unpatentable over Tamaki in view of Sakaguchi et al. (U.S. Patent 6,150,194). This rejection is traversed.

As explained above, Tamaki does not show or suggest the resin layer, which provides an unexpected result. The addition of Sakaguchi et al. does not cure the inherent deficiencies of the rejection based on Tamaki. It is noted that claims 9-12 are dependent claims and are at least considered patentable for at least the same reasons as their base claim or intervening claim.

For the reasons set forth above, the Examiner is requested to reconsider and withdraw the rejection of the claims under 35 U.S.C. § 103.

Sixth Rejection

Claims 13-16 were rejected under 35 U.S.C. 103(a) as being unpatentable over Tamaki et al. in view of Takahashi et al. (U.S. Patent 6,153,448). This rejection is traversed.

The claims rejected here are dependent claims and are considered patentable at least for the same reasons as their base claims or intervening claims. The deficiencies in Tamaki et al. were explained above. The Takahashi et al. reference does not cure the inherent deficiencies of the rejection based on Tamaki et al.

Additionally, this is an important feature and provides a result which is not expected. See, for example, page 3, the advantages of the spin coating as set forth in the specification on page 3, lines 22-24.

For the reasons set forth above, the Examiner is requested to reconsider and withdraw the rejection of the claims under 35 U.S.C. 103.

Further comments as to the rejections under 35 U.S.C. 103.

The following comments apply to the six separate rejections of the claims set forth in the Final Office Action.

In rejecting the claims, it is clear that the Office Action only concentrated on the substitution of the elements, not the combination as a whole as required by 35 U.S.C. 103. See, *Hybritech, Inc. v. Monsanto Antibodies, Inc.*, 231 USPQ 81, 93 (Fed. Cir. 1986) (also cited in the MPEP) wherein the Court stated as follows:

Focusing on the obviousness of substitutions and differences instead of the invention as a whole . . . was a legally improper way to simplify the difficult determination of obviousness.

Also, it appears that the Office Action has not given any significance to the results achieved in determining the issue of obviousness under 35 U.S.C. 103. See, *Gillette Co. v. S.C. Johnson & Sons, Inc.* 16 USPQ 2nd, 1923, 1927 (Fed. Cir. 1990) wherein the Court stated as follows:

An analysis of the obviousness of a claimed combination must include the consideration of the results achieved.

It appears that the rejection has given no consideration as to the results, which is a requirement of the law. The results, of course, are evidence of non-obviousness as recently explained in the case of *In Re Dembiczak*, 50 USPQ 2nd, 1614 (Fed. Cir. 1999).

CONCLUSION

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Elliot A. Goldberg (Reg. No. 33,347) at the telephone number of (703) 205-8000, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully Submitted,

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